

Application No. 09/994465 (Docket: DT.0103-CP1)  
37 CFR 1.111 Amendment dated 01/16/2007  
Reply to Office Action of 11/02/2006

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**JAN 16 2007**

**AMENDMENTS TO THE CLAIMS**

Kindly amend claims 1, 11, 20, and 30 as shown in the following listing of claims. The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1. (Currently Amended) An interface enabling a user to determine optimum prices of products for sale, comprising:

a scenario/results processor, configured to enable a user to prescribe an optimization scenario, and configured to present the optimum prices to said user, wherein the optimum prices are determined by execution of said optimization scenario by an optimization engine coupled to said scenario/results processor, and wherein said optimum prices are determined based upon estimated-product demand estimated by said optimization engine and calculated activity based costs, said scenario/results processor comprising:

an input/output processor, configured to acquire data corresponding to said optimization scenario from said user, and configured to distribute optimization results to said user wherein said input/output processor comprises:

a template controller, configured to provide first price optimization templates and second price optimization templates, wherein said first price optimization templates are presented to said user to allow for prescription of said optimization scenario, and for distribution of said optimization results, and wherein said first price optimization templates comprise:

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a plurality of new scenario templates, configured to enable  
said user to prescribe scenario parameters  
corresponding to said optimization scenario,  
wherein said plurality of new scenario templates  
comprises:

~~a category template, for specifying a product~~  
~~category for price optimization, said product~~  
~~category comprising:~~

~~a plurality of demand groups, each of said~~  
~~plurality of demand groups~~  
~~configured to categorize a set of~~  
~~highly correlated products;~~

~~a products template, for specifying the products for~~  
~~sale, wherein the products for sale span~~  
~~more than one of said plurality of demand~~  
~~groups; and~~

an at-large rules template, for specifying rules to  
govern determination of the optimum prices,  
said rules comprising:

maximum allowable price swing for each of  
the products for sale; and

maximum allowable swing for average price  
of each demand group within said  
plurality of demand groups; and

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a command interpreter; configured to extract commands from said first price optimization templates executed by said user, and configured to populate said second price optimization templates according to result data provided for presentation to said user; and

a scenario controller, coupled to said input/output processor, configured to control acquisition of said data and distribution of said optimization results in accordance with a price optimization procedure, wherein said price optimization procedure is configured to relax constraints of lower priority conflicting rules to render said optimization scenario feasible.

2. (Previously Presented) The interface as recited in claim 1, wherein said data is acquired from said user over the Internet via a packet-switched protocol.
3. (Previously Presented) The interface as recited in claim 2 wherein said data is acquired from a source electronic file and said optimization results are distributed to a destination electronic file, said electronic files being designated by said user.
4. (Cancelled)
5. (Previously Presented) The interface as recited in claim 1, wherein said first and second price optimization templates are provided according to hypertext markup language (HTML).
6. (Previously Presented) The interface as recited in claim 1, wherein said first and second price optimization templates are provided according to extensible markup language (XML).
7. (Previously Presented) The interface as recited in claim 1, wherein said first and second price optimization templates are provided as Java applets.
8. (Cancelled)
9. (Cancelled)

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10. (Cancelled)
11. (Currently Amended) The interface as recited in claim 1, wherein said plurality of new scenario templates further comprises:
  - a category template, for specifying a product category for price optimization, said product category comprising:
    - a plurality of demand groups, each of said plurality of demand groups configured to categorize a set of highly correlated products;
  - a products template, for specifying the products for sale, wherein the products for sale span more than one of said plurality of demand groups; and
  - a locations template, for specifying a plurality of store groups for which the optimum prices are to be determined, wherein, when determining the optimum prices, the apparatus employs portions of said data that correspond to said plurality of store groups.
12. (Currently Amended) The interface as recited in claim 1, wherein said plurality of new scenario templates further comprises:
  - a time horizon template, for specifying a time period for which the optimum prices are to be determined.
13. (Cancelled)
14. (Previously Presented) The interface as recited in claim 1, wherein said plurality of new scenario templates further comprises:
  - a strategy template, for specifying a merchandising performance figure of merit, and for specifying limits for changes in sales volume.
15. (Previously Presented) The interface as recited in claim 14, wherein options for specification of said merchandising performance figure of merit comprise net profit, said sales volume, and revenue.

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16. (Previously Presented) The interface as recited in claim 1, wherein said first price optimization templates further comprise:  
  
a configured rules template, configured to enable said user to prescribe a priority corresponding to each of a plurality of rules, said plurality of rules providing constraints for said optimization scenario.
17. (Previously Presented) The interface as recited in claim 1, wherein said first price optimization templates further comprise:  
  
a subset re-optimization template, configured to enable said user to prescribe a maximum number of price changes to be determined by execution of said optimization scenario.
18. (Previously Presented) The interface as recited in claim 1 wherein said second price optimization templates comprise:  
  
a price optimization results template, for providing said user with said result data corresponding to said optimization scenario.
19. (Previously Presented) The interface as recited in claim 18, wherein said result data comprises optimized values and percent change values for merchandising factors, wherein said merchandising factors comprise one or more of the following: sales volume, revenue, product cost, gross margin, and net profit.
20. (Currently Amended) A method for providing an interface to an apparatus for optimizing the prices of products for sale, comprising:  
  
utilizing a computer-based scenario/results processor within an optimization server to present a sequence of data entry templates to a user, whereby the user specifies an optimization scenario, the optimization server optimizing the prices according to modeled-market demand for the products and ~~calculated~~ demand chain costs for the products; said utilizing comprising:  
  
~~first providing a category template, for specifying a product category for price optimization, wherein the product category comprises a plurality of demand groups;~~

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~~second providing a products template, for specifying the products for sale for which the optimum prices are to be determined, wherein the products for sale span more than one of the plurality of demand groups;~~

~~third providing a time horizon template, for prescribing a time period for which the optimum prices are to be determined;~~

~~fourth providing a locations template, for prescribing a plurality of store groups for which the optimum prices are to be determined, wherein said prescribing directs said optimizing to utilize data corresponding to the plurality of said store groups when determining the optimum prices; and~~

~~fifth~~ first providing an at-large rules template, for specifying rules to govern determination of the optimum prices, wherein the rules specify maximum allowable price swing for each of the products for sale, and maximum allowable swing for the average price of each demand group ~~within the~~ within a plurality of demand groups;

~~sixth~~ second providing a configured rules template, for prioritizing the rules, wherein, if particular rules conflict, the optimization server optimizes the prices by progressively relaxing constraints prescribed by lower-priority rules; priority rules; and

selectively limiting the number of prices that are optimized; and

within an optimization engine that is coupled to the computer-based scenario/results processor, estimating the market demand and calculating the demand chain costs for the products; and

generating a plurality of optimization results templates and providing these templates to the user, wherein the optimum prices are presented.

21. (Previously Presented) The method as recited in claim 20, wherein said utilizing further comprises:

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acquiring data corresponding to the optimization scenario from the user; and  
formatting the data into a format suitable for performing a price optimization  
according to the optimization scenario.

22. (Original) The method as recited in claim 21, wherein said acquiring comprises:  
obtaining the data from the user over a data network that employs a packet-switched protocol.
23. (Original) The method as recited in claim 21, wherein the data is acquired from a source electronic file that is designated by the user.
24. (Original) The method as recited in claim 20, wherein the data entry templates and the optimization results templates are generated in hypertext markup language (HTML).
25. (Original) The method as recited in claim 20, wherein the data entry templates and the optimization results templates are generated in extensible markup language (XML).
26. (Original) The method as recited in claim 20, wherein the data entry templates and the optimization results templates are generated as Java applets.
27. (Cancelled)
28. (Cancelled)
29. (Cancelled)
30. (Currently Amended) The method as recited in claim 20, wherein said utilizing further comprises:  
third providing a category template, for specifying a product category for price optimization, wherein the product category comprises the plurality of demand groups;  
fourth providing a products template, for specifying the products for sale for which the optimum prices are to be determined, wherein the products for sale span more than one of the plurality of demand groups;

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fifth providing a time horizon template, for prescribing a time period for which  
the optimum prices are to be determined;

sixth providing a locations template, for prescribing a plurality of store groups for  
which the optimum prices are to be determined, wherein said prescribing  
directs said optimizing to utilize data corresponding to the plurality of said  
store groups when determining the optimum prices; and

~~providing seventh~~ providing a strategy template, for specifying a merchandising  
performance figure of merit, and for prescribing limits for changes in sales  
volume.

31. (Original) The method as recited in claim 30, wherein options for specifying the merchandising performance figure of merit comprise net profit, sales volume, and revenue.
32. (Original) The method as recited in claim 21, wherein said generating comprises:  
providing a price optimization results template, for supplying the user with  
scenario results corresponding to the optimization scenario, wherein the  
scenario results include optimized values and percent change values for  
merchandising factors, the merchandising factors including one or more of  
the following: volume, revenue, product cost, gross margin, and net profit.